

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

ORDER No. R2-2002-0081

WASTE DISCHARGE REQUIREMENTS FOR:

**UNION OF AMERICAN HEBREW CONGREGATIONS
CAMP SWIG
SARATOGA, SANTA CLARA COUNTY**

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter called the Board, finds that:

1. Union of American Hebrew Congregations (hereinafter UAHC) owns and operates Camp Swig, a retreat, conference and summer youth camp. The Camp Swig facility is served by a wastewater treatment and disposal system located at the facility site, owned and operated by UAHC.
2. The existing Camp Swig wastewater system is presently regulated by waste discharge requirements prescribed by Regional Board Order No. 87-124. UAHC submitted a Report of Waste Discharge, dated February 20, 2001, for the construction and operation of an upgraded wastewater treatment and disposal system to serve the Camp Swig facility. The purpose of this Order is to prescribe revised waste discharge requirements, which address the new wastewater system, and to rescind the existing Order.
3. The Camp Swig facility is located at 24500 Big Basin Way, Saratoga, Santa Clara County, APN#s 503-43-001, 503-35-001, at Lat. 37° 15' 07" ', Long. 122° 05' 33" '. A facility location map is included as Attachment 1 of this Order.
4. Camp Swig is located on Saratoga Creek, a seasonal stream, at the headwaters of Stevens Creek, which drains western Santa Clara County and flows from southwest to northeast into South San Francisco Bay. Stevens Creek receives year-round flows from Stevens Creek Reservoir, including high flows during spring run-off in wet years. The Camp Swig site is estimated to receive average annual rainfall of about 48 inches, occurring mainly between the months of November through April.

EXISTING CAMP FACILITIES

5. Camp Swig can presently serve up to 435 campers and staff during the summer months and up to 100 residents during winter time weekends. A camp director and a caretaker live at the site year round. The camp facilities include some 40+ building, including: Dining Hall, Program building, Administration building, camper housing, staff housing, storage buildings, bathrooms and art studios. Also on site is a volleyball court and ball field.

PROPOSED CAMP FACILITIES

6. Camp Swig is a very old facility in the need of updating. The new facilities are being designed around a recent geologic site analysis for earthquake fault risks. High earthquake risk in the eastern section of the site will restrict certain uses involving housing, etc. The new project will involve demolishing most of the older buildings including camper housing, staff housing, some storage facilities, bathrooms and art studios. The buildings to remain are: the Dining Hall, Program Building, Administration Building, storage and entry (to

be converted into a new office), two cabins near the volleyball court (to be converted to daytime use only as art studios) a storage shed at the knoll and the pool shed. In addition new camper and staff housing will be constructed, primarily in the western section where site stability permits it (see Site Plan, Attachment 2). Facility improvements are to be constructed during the late summer and fall of 2002.

The new Camp Swig facilities will serve 220 summer campers and 75 employees. The Camp staff will consist of the following: 11 permanent employees and an additional 64 seasonal employees during the summer. During the winter weekends the facilities will accommodate up to 200 people, with the average expected to be 100.

EXISTING TREATMENT AND DISPOSAL SYSTEMS

7. Presently, there are three sources of wastewater on the Camp Swig site: the general camp area, the Holocaust Memorial, and the caretaker's house. The wastewater generated in the general camp area and the Holocaust Memorial is collected in a gravity line, which flows into two septic tanks and from there to a concrete chlorine-contact tank. The wastewater then flows into a sump from which it is pumped directly onto a spray field for disposal. Presently, only half of the spray fields are being used, causing an overloading of the soil capacity for absorption and adding to the possibility of destabilizing the area. The caretaker's house is far from the main campsite and the wastewater is disposed of in a septic system next to the house.

The present system is designed to provide primary treatment for 16,000 gallons per day (gpd) for the equivalent of 435 summer residents and staff per day and 100 + winter residents and staff for weekend use only.

PROPOSED TREATMENT AND DISPOSAL FACILITIES

8. Wastewater Treatment and Disposal System

The proposed Camp Swig facility upgrade is based on providing accommodations for 220 campers and 75 staff per day for the summer months and up to 200 winter residents and staff for weekend use only. The new wastewater system is designed to accommodate these uses. The new wastewater system will be completed by early spring of 2003. The design flow for the new wastewater system is 16,000 gallons per day.

a. Wastewater Treatment:

The new wastewater system will provide primary and secondary treatment, disinfection, storage of disinfected effluent and disposal by subsurface irrigation. Primary treatment will be provided by a 16,000-gallon septic tank. This is equivalent of 133% of a day's flow. Secondary treatment will be attained in re-circulating textile filters with a 16,000-gallon re-circulating tank. The textile filters will be designed so that units or (pods) can be turned off during low flow periods. Disinfection will be attained through chlorine dosage. The disinfected effluent will be stored in a 48,000-gallon tank. This tank can hold four-days of summer flow and eleven-days of winter flow. The tank will be used for storing the treated wastewater prior to disposing of it in a subsurface irrigation system.

b. Wastewater Reuse Through Subsurface Irrigation:

Final disposal of the treated effluent will be achieved through the subsurface landscape irrigation system. Areas capable of accepting the flow are shown in the landscaping plan (See Section C.).

c. Effluent Quality

The treatment system will produce an effluent with less than 20 mg/l of total inorganic nitrogen (ammonia, nitrite, and nitrate nitrogen) and less than 10mg/l of 5-day Biological Oxygen Demand (BOD₅) and Total Suspended Solids (TSS). The subsurface irrigation system is designed to deliver water to meet plant evapo-transpiration requirements and a limited nitrogen supply to the soil/plant system. There will be some liquid effluent percolation below the boundary of the A horizon and the subsurface soils. When the effluent does migrate past the A soil horizon, the total inorganic nitrogen (TIN) level will be less than 10 mg/l.

9. Basis For Treatment System Design

The basis for the design of the various processes in the Camp Swig wastewater/reclaimed water system is found in the following discussion and calculations. Influent raw wastewater concentrations and effluent quality for the system are listed in Table 1 below:

Table 1. Design Wastewater characteristics for Camp Swig's treatment/reuse system

<u>Parameter</u>	<u>Influent</u>	<u>Effluent</u>
BOD	300 mg/l	10 mg/l
TSS	350 mg/l	10 mg/l
Total nitrogen	40 mg/l	20 mg/l
Fecal coliform	10 ⁷ MPN/100 ml	23 MPN/100ML

10. Water Conservation

State of the art water conservation technology will be used for bathing and washing, flushing toilets, dishwashing (efficient institutional dishwasher), and irrigation systems. The kitchen will not have a garbage grinder. A grease interceptor will collect grease from the kitchen prior to flow into the septic tank and recirculating sand filter. All organic food waste will be collected and composted and/or disposed of off-site.

11. Wastewater Treatment System Safeguards and Operations:

The wastewater system will include equipment and procedures to ensure adequate and reliable performance. These measures include:

- a) Wastewater system operated and maintained by trained and knowledgeable personnel.
- b) O&M Program and manual will be developed.
- c) Pump and Flow monitoring will be conducted.
- d) Subsurface irrigation system will be monitored for times of use and distribution network pressure.
- e) Alarms will be installed in the recirculation basin for low and high flow conditions. Alarms will also be installed in the treated effluent storage tank for low and high water level conditions.
- f) Back up power will be provided for pump stations within the treatment system.
- g) To preclude public contact with treated wastewater the entire wastewater treatment unit will be fenced with proper signage.

GROUNDWATER ISSUES

12. Nitrate loading from on-site wastewater disposal systems can potentially degrade groundwater supplies and contribute to nutrient enrichment of surface water bodies. The groundwater at the Camp Swig site is not currently used as a drinking water supply due to natural high levels of total dissolved solids. With respect to Stevens Creek, shallow groundwater down gradient of the project site could potentially be affected by nitrate additions. The proposed subsurface irrigation system is designed to maximize nitrogen uptake and minimize the potential for nitrates from reaching the creek.

BASIN PLAN AND BENEFICIAL USES

13. The Board adopted a revised Water Quality Control Plan (Basin Plan) for the San Francisco Bay Region on June 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The State Water Resources Control Board and the Office of Administrative Law approved the revised Basin Plan on July 20 and November 13, 1995, respectively. A summary of regulatory provisions is contained in Title 23 of the California Code of Regulations in Section 3912. The Basin Plan defines beneficial uses and water quality objectives for surface waters and groundwaters in the region, as well as effluent limitations and discharge prohibitions intended to protect beneficial uses. This Order implements the plans, policies and provisions of the Basin Plan.
14. The Basin Plan defines beneficial uses and water quality objectives for waters of the State within the San Francisco Bay Region, including surface and ground waters.
15. The beneficial uses identified in the Basin Plan for Stevens Creek include:
 - a. Agricultural Supply
 - b. Cold and Warm freshwater habitat
 - c. Fish Migration
 - d. Fish spawning
 - e. Wildlife habitat
 - f. Water contact and non-contact recreation
16. The beneficial uses identified in the Basin Plan for San Francisco Bay South include:
 - a. Commercial and Sport Fishing
 - b. Estuarine Habitat
 - c. Industrial Service Supply
 - d. Fish Migration
 - e. Navigation
 - f. Preservation of Rare and Endangered Species
 - g. Water contact and non-contact recreation
 - h. Shellfish Harvesting
 - i. Fish Spawning
 - j. Wildlife Habitat

REGULATORY ISSUES AND APPLICATIONS

17. On January 28, 1998, the UAHC filed a Negative Declaration in which the environmental effects of the proposed project were evaluated. The UAHC Board of Directors certified the Negative Declaration and adopted a Land Use Plan for the project on April 7, 1998 (Resolution 1998-4-58). The Mitigated Negative Declaration and its mitigation measures are in accordance with California Environmental Quality Act (Public Resources Code Section 2100 et. seq.).
18. The project as regulated by this Order will not have a significant adverse impact on water quality.
19. The Board has notified the UAHC and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with the opportunity for a public hearing and opportunity to submit their written views and recommendations.
20. The Board, in a properly noticed public meeting, heard and considered all comments pertaining to this Order and the discharge.

IT IS HEREBY ORDERED that the Union of American Hebrew Congregations, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted hereunder, shall comply with the following:

A. Prohibitions

1. The treatment or disposal of waste shall not create a nuisance as defined in Section 13050(m) of the California Water Code.
2. The discharge of waste other than domestic wastes into the waste treatment and disposal system is prohibited.
3. Wastewater shall not be discharged to waters of the State, via either surface flow or surfacing after subsurface irrigation.
4. The average dry weather flow to the wastewater treatment system shall not exceed 16,000 gpd.

B. Discharge Specifications

1. The disposal of waste shall not cause degradation of ground or surface water suitable for domestic water supply or cause an increase in any water quality parameter that would impair the beneficial uses identified in this Order.
2. The re-circulating textile filter treatment system shall be fenced to preclude unauthorized public access
3. The following limitations pertain to the fully treated wastewater effluent from the wastewater treatment facility, as discharged to the irrigation area during the irrigation period.

- a. The effluent discharged shall not exceed the following limits:

<u>Constituent</u>	<u>Unit</u>	<u>Daily Maximum</u>
1) BOD ₅	mg/l	10
2) TSS	mg/l	10
3) Oil & Grease	mg/l	10
4) Nitrate Nitrogen	mg/l	20
5) Free Chlorine Residual	mg/l	0.5

- b. pH: The pH of the discharge shall not exceed 8.5 nor be less than 6.5.

- c. Total Coliform Bacteria:

The treated wastewater shall meet the following limits of bacteriological quality:

The moving median value for the Most Probable Number (MPN) of total coliform bacteria in any five consecutive samples shall not exceed 23 MPN/100 ml; and any single sample shall not exceed 240 MPN/100 ml when verified by a repeat sample taken within 48 hours.

4. The treatment system shall be protected from erosion, washout, and flooding from the maximum flood having a predicted frequency of once in 100 years.

C. Subsurface Irrigation Plan

The UAHC shall develop a **Reclamation Landscape Plan acceptable to the Executive Officer 60 days prior to installation of the subsurface irrigation system.** The Plan shall describe the subsurface irrigation system, areas to be irrigated, type of flora to be maintained by the irrigation system, and operation and maintenance of the entire water reuse system. The Plan shall be implemented immediately upon commencement of the wastewater system operation.

D. Provisions

1. The UAHC shall comply with all sections of this Order immediately upon commencement of discharge.
2. The UAHC shall maintain a copy of this Order at the site so that it will be available at all times to personnel operating waste treatment and disposal facilities.
3. The UAHC shall maintain in good working order and operate as efficiently as possible any treatment, disposal, and monitoring facility or control system installed by the UAHC to achieve compliance with these waste discharge requirements.
4. The UAHC shall comply with the attached self-monitoring program as adopted by the Board and as may be amended by the Executive Officer.
5. The wastewater system shall be designed, constructed and operated in accordance with information submitted to the Board as part of the Report of Waste Discharge, and any additional information submitted pursuant to this Order. The UAHC shall submit to the Board copies of final 'as built' plans

and descriptions of the wastewater system, within 60 days after completion of construction of the new wastewater system.

6. The UAHC shall notify the Board, in writing, at least 60 days before making any material change in the character, location, or volume of the wastewater treatment or disposal practices regulated by this Order, except in emergencies, in which case the Board shall be notified as soon as possible.
7. The UAHC shall implement a program to regularly review and evaluate its wastewater collection, treatment and disposal facilities in order to ensure that all facilities are adequately staffed, supervised, operated, maintained, and repaired as necessary, in order to provide adequate and reliable treatment, and disposal of all wastewater. A **Treatment Facilities Evaluation Program** report discussing the status of this evaluation program, including any recommended or planned actions, shall be submitted to the Board by **April 30** of each year.
8. The UAHC shall submit to the Board an **Operational and Maintenance Manual** for the entire wastewater treatment and disposal facilities **acceptable to the Executive Officer 60 days prior to startup of the wastewater system.**
9. The UAHC shall provide employee training to ensure proper operation of wastewater treatment and disposal facilities. All personnel responsible for operation and maintenance of the wastewater treatment and disposal facilities shall be provided with a copy of the Operation and Maintenance Manual furnished by the designer of the waste discharge facilities.
10. The UAHC shall provide the Board documentation that they have a contractual agreement with a qualified "licensed" wastewater treatment "Operator," to be on call as needed to assist the on-site wastewater manager as needed. This requirement can be waived if the on-site wastewater treatment system manager is licensed to operate wastewater treatment systems.
11. The UAHC shall permit the Regional Board or its authorized representative in accordance with California Water Code Section 13267(c):
 - a. Entry upon premises in which an effluent source is located or in which any required records are kept.
 - b. Access to copies of any records required to be kept under the terms and conditions of this Order.
 - c. Inspection of monitoring equipment or records, and
 - d. Sampling of any discharge.
12. In the event of any change in control or ownership of the land or the waste discharge facilities presently owned or controlled by the UAHC, the UAHC shall notify the succeeding owner or operator of the existence of this Order by a letter, a copy of which shall be forwarded to the Board.
13. This Board will review this Order periodically and may revise it as necessary.
14. Existing Waste Discharge Requirements, Order No. 87-124, is hereby rescinded.

I, Loretta K. Barsamian, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on August 20, 2002.


Loretta K. Barsamian
Executive Officer

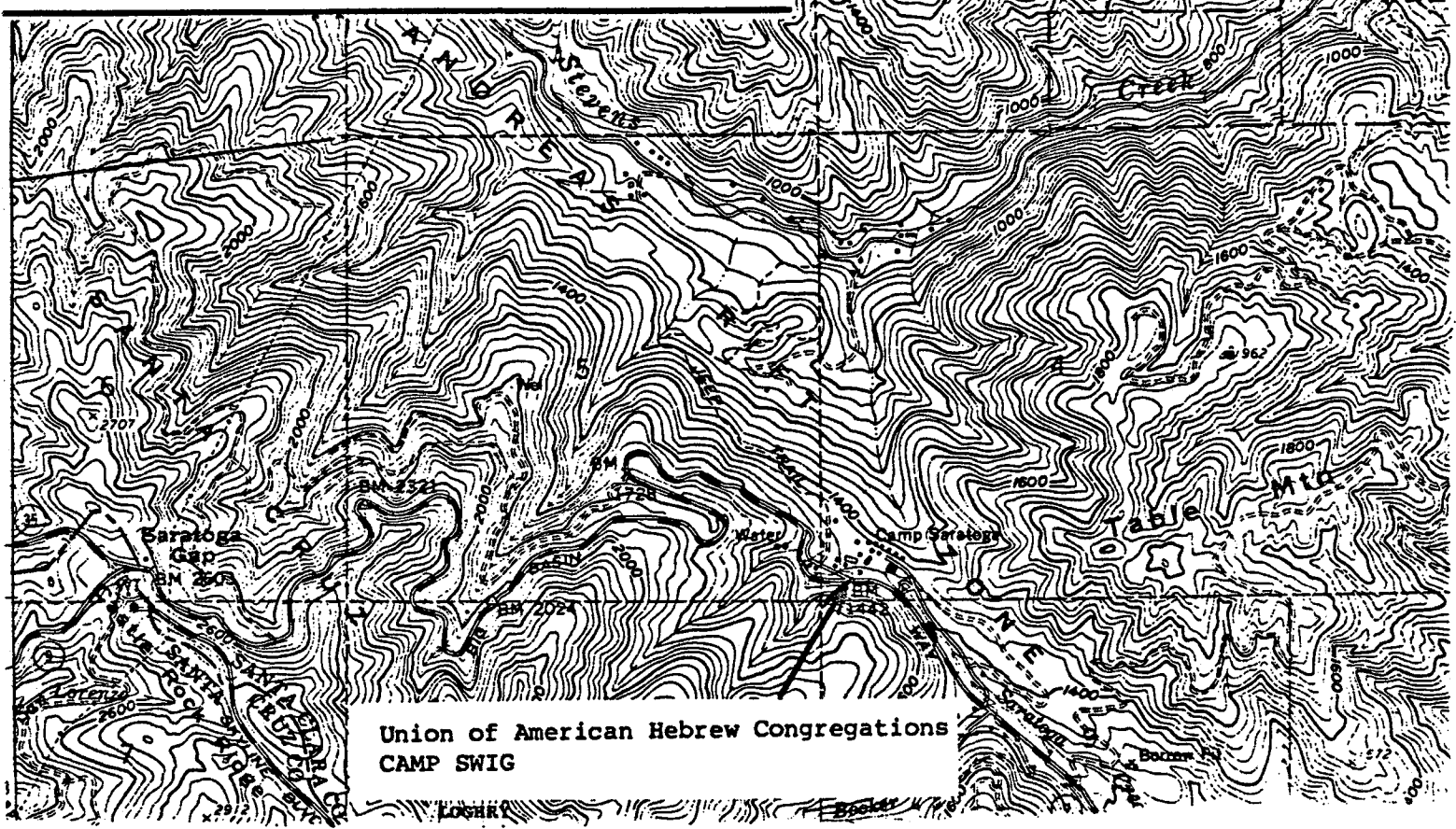
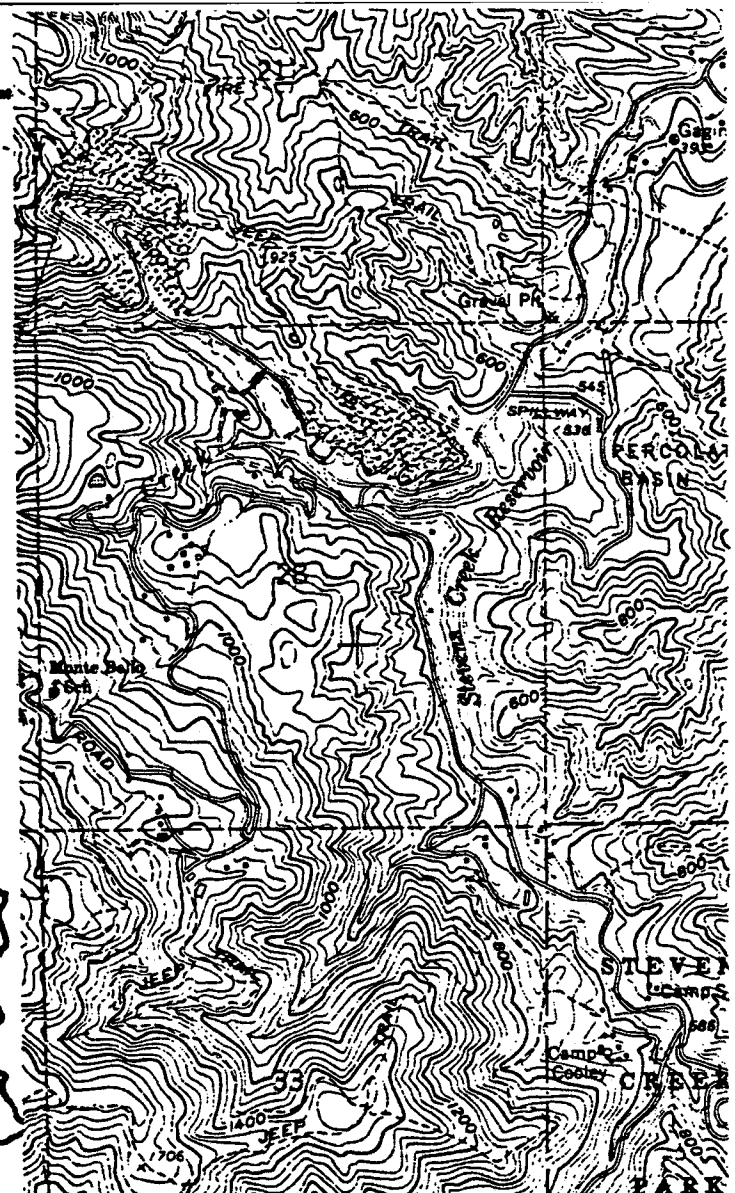
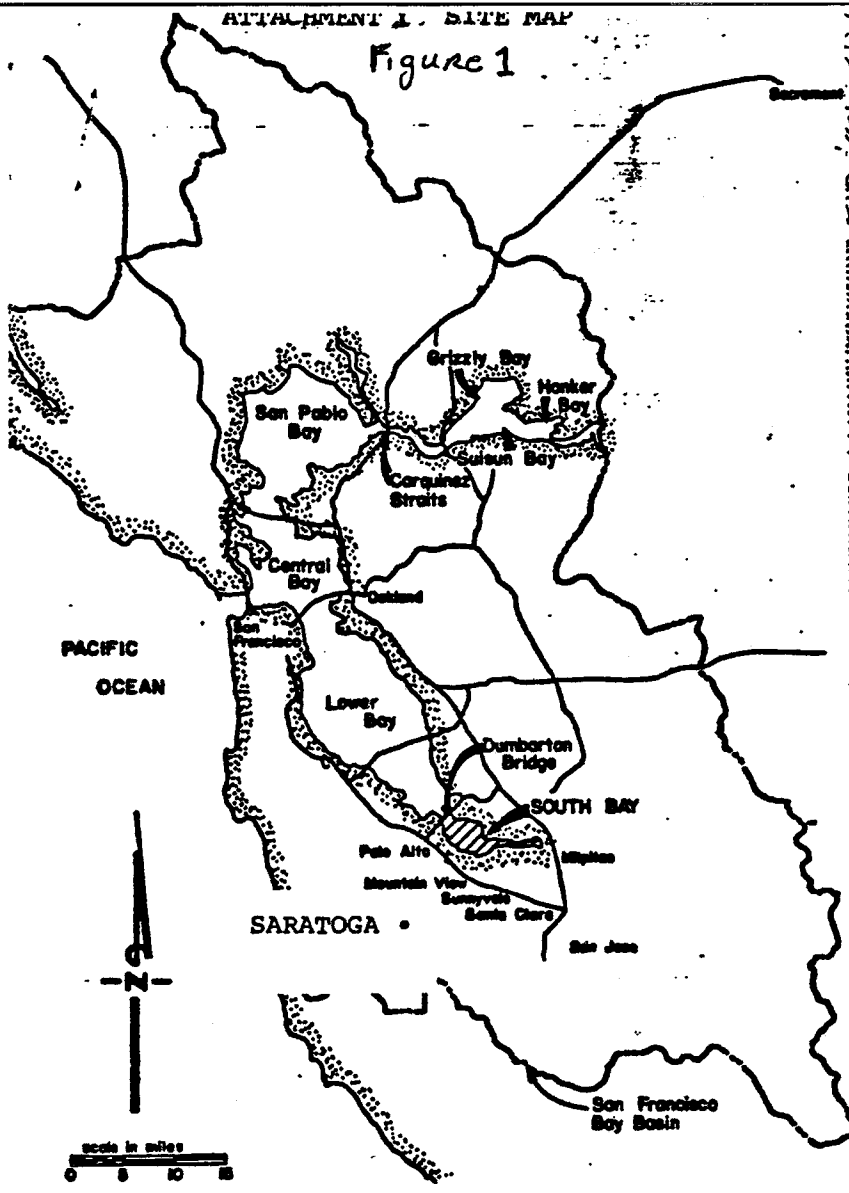
Attachments:

1. Attachment 1, Figure 1, Location Map.
2. Attachment 2, Site Plan
3. Self-Monitoring Program
4. Standard Provisions & Reporting Requirements (WDR Version)

Facility ID No. 2 438028001
File No. 2189.8028
Originator RJC/Review BDA

ATTACHMENT 1

Figure 1



ATTACHMENT 2

[illegible]

critical dimensions in these drawings shall have precedence over scaled dimensions. Contractors shall verify and be responsible for all dimensions and conditions on the J&A, and the office shall be notified of any variations from the dimensions and conditions shown by these drawings. Shop details must be coordinated to the office for approval before proceeding with fabrication.

Row No	Revision	Date
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Product Title

CAMP SWIG Renovation and Remodel

24500 Elia Basin Way, San Antonio, CA 95070

(N) Camp Plan

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3

**HERMAN & COLIVER : ARCHITECTURE
PLANNING AND DESIGN STUDIO**

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Checked:	
Approved:	

A-1.1

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ATTACHMENT 3

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

for

Union of America Hebrew Congregations
Camp Swig
Saratoga, Santa Clara County

ORDER NO. R2-2002-0081

August 2002

1. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383, and 13387(b) of the California Water Code.

The principal purposes of a monitoring program by a waste discharger, also referred to as a self-monitoring program, are:

1. To document compliance with wastewater requirements and prohibitions established by this Regional Board; and
2. To facilitate self-policing by the discharger in the prevention and abatement of pollution arising from wastewater treatment and disposal.

II. MONITORING PROGRAM FOR CAMP SWIG

A. Sampling, analysis, and observation stations shall be established at the following locations:

1. A-1: Wastewater System Influent:

At any point in the Camp Swig collection system, before the 16,000 gallon septic tank, where all waste is measured tributary to the septic tank.

2. L-'n': Irrigation Area Observations:

Located along the perimeter of the Camp Swig irrigation sites at regular intervals that will not exceed 100 feet. Observation stations shall be identified in the Reclamation Landscape Plan. (A sketch showing the location of these stations shall accompany each SMP report).

3. E-1 & E-2: Effluent Station(s):

E-1: Located at the outlet of textile filter system and prior to the disinfection station.

E-2: Located at the outlet of the disinfection unit and prior to the discharge to the Camp Swig irrigation system.

B. Sampling, analysis, and observations shall be performed as follows:

1. **A-1: Continuous**

Inflow Readings: Continuous flow monitoring of influent flows, with daily records. Weekly and monthly totals recorded and reported.

2. **L-'n': Daily**

Daily observations recorded and reported along irrigation distribution system for broken lines/leakage

3. E-1: Monthly:

The following analyses shall be performed twice each month during the period May-September and monthly during the period October through April to check the performance of the textile filter system:

- a. Chemical analyses: Total Inorganic Nitrogen (mg/l), BOD₅ (mg/l), Total Suspended Solids (mg/l), Oil & Grease (mg/l), and pH

The following analysis shall be performed twice each month to verify compliance with coliform limits:

- b. Total Coliform Bacteria (MPN)/100 ml

E-2: Twice Weekly: Residual Chlorine

4. Interim System Monitoring:

To document that the new wastewater treatment and distribution system is working effectively, the above chemical and coliform sampling and analyses program shall be performed on a weekly basis after initial start-up until a stable and consistent system performance is demonstrated.

III. SYSTEM OPERATION/MAINTENANCE MONITORING

- A. To prolong the life of the on-site systems and assist in early detection of possible problems, the following are required:

1. Protect the disposal field areas from vehicle traffic or other activities that might create ruts or excessive compaction of the soil.
2. Maintain water use to a minimum; repair leaking fixtures when detected; install ultra-low flush toilets and shower heads.

- B. Camp Swig staff shall perform the following **Operation and Maintenance (O&M)**:

1. **General Operation and Maintenance (O&M)**

The **O & M Manual** shall include scheduling of specific tasks to ensure the treatment and distribution system will consistently and reliably perform according to the design criteria outlined in the **Manual**. All monitoring practices identified in the O&M manual must be implemented.

2. **Grease Interceptor:** Carryover of excessive concentrations of grease can be especially damaging to the irrigation system. The grease interceptor will require frequent inspection and pump-out. This should be performed as often as needed: at least weekly for the first month or until stable operations are demonstrated. It is recommended that at least monthly inspection be performed thereafter.

IV. REPORTS TO BE FILED BY CAMP SWIG WITH THE REGIONAL BOARD

1. Violation of Requirements

In event that UAHC is unable to comply with conditions of its wastewater requirements and prohibitions, UAHC shall notify the Regional Board in writing within two weeks of the non-compliance. The written report shall include pertinent information explaining reasons for the non-compliance and shall indicate **what steps are being taken to prevent the problems from recurring.**

2. Self-monitoring Reports

Written reports shall be filed regularly on a quarterly basis; the fifteenth of January, April (part of Annual Report), July and October. The Reports shall be comprised of the following:

a. Letter of Transmittal

A letter transmitting self-monitoring reports should accompany each report. Such a letter shall include a discussion of violations found during the past quarter related to the Camp's program and actions taken for correcting violations. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true and correct.

b. Program Information

The following information should be included in the quarterly report:

- a) Violations Summary
- b) System Performance Review & Monitoring

The quarterly report content and format may be changed in consultation with Board staff.

3. Annual Report

An annual report shall be submitted by April 15. This report should summarize for the past year all the information collected in the quarterly reports. It should also include a discussion of the overall success and weaknesses of the wastewater treatment and disposal, with recommendations for changes or improvements.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing Self-monitoring Program is effective on the date shown below and may be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from The Union of America Hebrew Congregations.


Loretta K. Barsamian
Executive Officer

Effective Date: August 22, 2002